Request for Participation
Summer 2006 Automated Critical Peak Pricing Test

Is your facility ready for dynamic pricing?
Through participation in the 2006 Automated Critical Peak Pricing (CPP) test, your facility will be brought up to the speed of the Internet. PG&E will trigger price signals that will propagate to your facility to provide variable pricing for electricity. Qualified sites will be outfitted to respond to XML price signals transmitted over the Internet. During the 2006 summer test period, as the electricity price increases during a CPP event, some pre-selected electric loads will be automatically shed based on your facilities control strategy.

Time is money
Under dynamic electricity pricing, financial incentives will be greatest for organizations that are able to respond automatically to electric grid emergencies or price signals such as those produced in the upcoming test. The 2006 Automated Critical Peak Pricing test is a low risk way to get prepared!

Technical assistance and Internet hardware available
Researchers at the Lawrence Berkeley National Lab (LBNL) and a Demand Response Integration Services Company (DRISCO) will provide guidance to your staff in:
- Connecting your site to the Internet based price signal.
- Evaluating your shed control strategy and assessing its impacts

For sites that lack Web access to their energy management control systems, Internet hardware will be provided.

You can also take advantage of PG&E's technical incentives program for some of your set up costs. Ask your account managers about the incentives available for your facility today

Publicly identified as part of the solution

> "*Today I call upon all of my fellow Californians to work together during this peak demand*
> *period to use power wisely and take advantage of the available programs to save energy.*"
> Gov. Arnold Schwarzenegger July 27, 2004

Participants in the 2006 Automated Critical Peak Pricing test will help themselves and all Californians avert future power crises, such as those that occurred in 2001. All participants

will be publicly recognized in presentations at various conferences, and in trade and academic journals.

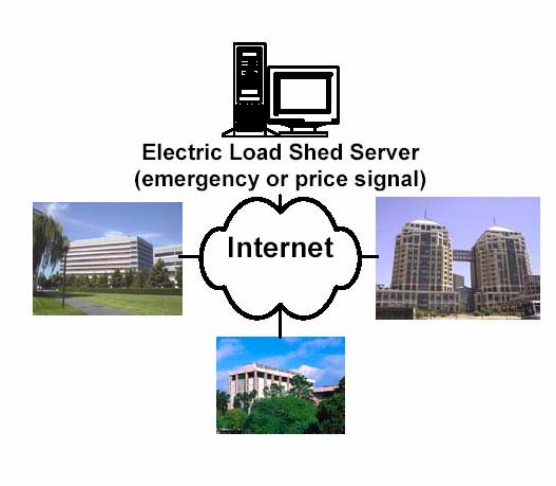
Site requirements

- Participation in PG&E's voluntary Critical Peak Pricing program.
- Functional energy management control system (EMCS) or energy information system (EIS).
- A means to measure and archive either whole building or component level electric loads on 15-minute intervals. Most large facilities have remotely readable interval meters such as InterAct II™ in PG&E's territory. Though not required, some systems with near "real-time" electric monitoring will also be selected.
- All sites must have access to the Internet (i.e. surf the Web from offices at the site). Having a Web-enabled EMCS or EIS is preferred but not required.

Implementation and Customer requirements

- Provide a public IP address to LBNL (usually available from the IT systems administrator).
- Select shed strategies. Global zone temperature set point setup/setback, lighting reductions, or shutting off other non-critical loads are all valid. Each site's facilities staff should consider these and other strategies that are best suited to their facility.
- Program or hardwire energy management control systems to shed loads based on relay contact or XML signal. Simple program changes to be conducted by staff or contractor.

Figure 1. Overview of system architecture



Test Description:

- PG&E will determine the days that CPP tariffs will be in effect.
- PG&E will announce upcoming CPP days using e-mail and pager alerts by 3:00pm the day ahead. All concerned parties will be alerted.
- On the day of a CPP event, a software application will command HVAC and/or lighting equipment at each site into a predetermined "shed" strategy. Shed strategies are worked out in advance by facility managers at the site. Although the sheds will occur automatically without human intervention, it is always possible for building managers to opt-out at any time.
- LBNL staff and DRISCO will assist each site in planning the shed strategies and technical

Schedule

- Site recruitment and selection during May 2006
- System development in May and June 2006
- Auto-CPP tests in June through October 2006

To sign-up please contact your PG&E Account Representative.

To request more information, please contact
Sila Kiliccote (510) 495-2615 skiliccote@lbl.gov

This project will be conducted through the **PIER Demand Response Research Center** (see drrc.lbl.gov) with funding from **PG&E**.